UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,367	06/19/2006	Arnaud Bailleul	4590-537	8185

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/583,367	BAILLEUL ET AL.
Office Action Summary	Examiner	Art Unit
	Jason D. Mitchell	2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 June 2006_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _7-12_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _7-12_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _19 June 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _3/30/09;3/26/07_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to an application filed on 6/19/06.

Claims 7-12 are pending in this application.

Claim Objections

Claim 7 objected to because of the following informalities: Line 2 recites "…

UML models, created creating during the creation". It is believed this should read "UML

models, created during the creation". Appropriate correction is required.

Claim 11 objected to because of the following informalities: The current

formatting of the claim makes it difficult to read and may result in some lack of clarity.

The examiner suggests that appropriate whitespace be added (see e.g. the formatting

of the rejection below).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to enable one skilled in

the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 11 & 12 repeatedly refer to "UML_DOORS requirements". Neither the specification, nor the claims provide an indication of what constitutes a "UML_DOORS requirement". Accordingly, those of ordinary skill in the art would not be able to make and or use the "UML_DOORS requirements".

Claims 11-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11-12 repeatedly refer to "UML_DOORS requirements". As noted above, this term has not been sufficiently defined. Accordingly, those of ordinary skill in the art would not understand what the specific limitations were intended to cover. For the purposed of this examination the term will be treated as describing requirements generally.

Claim 12 additionally recites "updating of the version number on the new ... Requirement with respect to the former". First, there is insufficient antecedent basis for the term "the version number". For the purposes of this examination the claim will be treated as reading "a version number". Further, it is not clear what functionality is being described here. Specifically, the claim does not clearly indicate what "the version number on the new ... Requirement" is updated to. In other words, the new requirement

was presumably assigned a version number when it was created, changing this number

would appear to result in an unintended value.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7-12 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claim 7 recites "A method of automatic uploading of the requirements of UML

models created by a modeling tool, and updating the UML models ... exporting the

requirements entered into the model to a requirements management tool" and as such

is not tied to another statutory class (such as a particular apparatus) and does not

transform underlying subject matter (such as an article of materials) to a different state

or thing. More specifically, the claim does not recite any particular structure or

requirements for the claimed "tools" and thus only claims them abstractly.

Claims 8-12 depend from claim 7 and are rejected accordingly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US
2005/0125769 to McGovern et al. (McGovern) in view of "Requirements Based
UML" by Schulz (Schulz).**

Claim 7: McGovern discloses a method of automatic uploading of the requirements of
models created by a modeling tool, and updating the models, created during the
creation of the elements of the model, comprising the steps of: when the model is
stabilized (par. [0075] "Each iteration corresponds to a set of completed functional
groups, a functional group comprising one or more related use cases"), exporting the
requirements entered into the model to a requirements management tool (par. [0034]
"use cases are stored in an asset repository according to a meta module which allows
retrieval of use cases for re-use"; par. [0073] "use cases define a set of requirements for
a project"), automatically creating a navigation module including all the objects pointed
at by at least one requirement and a requirements module of level n (par. [0091] "Links
an Action (step) to a Collaboration (use case), ... the Collaboration (use case) is a more
detailed representation of the Action (step) ... this relationship ... allows one to navigate
any depth of abstraction").

McGovern discloses a model, including requirements, created in a modeling tool, but
does not explicitly disclose that the model is a UML model.

Schulz teaches a UML model including requirements (Abstract "Requirements-Based

UML").

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to create UML models (Schultz Abstract "Requirements-Based UML")

defining the objects in McGovern's system (par. [0091] "Links an Action (step) to a

Collaboration (use case)"). Those of ordinary skill in the art would have been motivated

to do so because UML "is a notational standard that can be used to implement the tasks

within a methodology … without requiring retraining of the workforce" (Schulz pg. 307,

last partial par.)

Claim 8: The rejection of claim 7 is incorporated; further McGovern discloses the

requirements module of level n is linked to another upstream requirements module of

level n+1 defined previously (par. [0091] "Links an Action (step) to a Collaboration (use

case), … the Collaboration (use case) is a more detailed representation of the Action

(step)").

Claim 9: The rejection of claim 7 is incorporated; further, McGovern and Schulz teach

requirements modifications are performed in the UML model, with the modeling tool

(McGovern par. [0052] "the present invention provides … a software development tool";

Schulz pg. 308, 4th full par. "After the first level of UML diagrams is completed … the

requirements are refined").

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2005/0125769 to McGovern et al. (McGovern) in view of "Requirements Based UML" by Schulz (Schulz) in view of Applicant Acknowledged Prior Art techniques (AAPA).

Claim 10: The rejection of claim 7 is incorporated; further McGovern and Schulz do not teach the modeling tool is "RHAPSODY" and that the requirements management tool is "DOORS".

The applicant acknowledges that RHAPSODY and DOORS were products known and used in the prior art which respectively provided modeling and requirements management tools (pg. 1, When modeling a project … use is currently made [of] "RHAPSODY" … a requirements management tool such as "DOORS" … is made available").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make use of prior art known products (AAPA pg. 1, When modeling a project … use is currently made [of] "RHAPSODY" … a requirements management tool such as "DOORS" … is made available") for performing the functionality taught by McGovern and Schulz (Schulz pg. 308, 4th full par. "After the first level of UML diagrams is completed … the requirements are refined"; McGovern par. [0034] "use cases are

stored in an asset repository according to a meta module which allows retrieval of use cases for re-use").

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2005/0125769 to McGovern et al. (McGovern) in view of "Requirements Based UML" by Schulz (Schulz) in view of Applicant Acknowledged Prior Art techniques (AAPA) in view of US 6,751,795 to Nakamura (Nakamura).

Claim 11: The rejection of claim 10 is incorporated; further McGovern and Schulz teach during successive importations the following steps are carried out

creation of two new modules:

a UML_DOORS Requirements Module containing the set of UML_DOORS Requirements corresponding to all the UML Requirements contained in the UML model imported (Schultz pg. 308, 6th full par. "the requirements are refined into more detailed textual technical specifications."; pg. 315, last par. "a request during the change control process as well as ensuring that changes are completely propagated throughout the development model"), and

a UML navigation module representing the new UML [navigation] model (Schultz pg. 308, 6th full par. "In turn, these specifications are then related to the next round of UML diagram objects"),

updating of the former UML_DOORS Requirements Module (Schultz pg. 315,

last par. "a request during the change control process as well as ensuring that changes

are completely propagated throughout the development model"),

creation of the navigation links between the former UML_DOORS Requirements

Module and the new UML navigation module (Schultz pg. 316, 6th par. Traces are also

established between the requirements and UML objects").

McGovern and Schulz teach updating the UML_DOORS Requirements Module and the

UML navigation module, but do not explicitly disclose analyzing the updates to between

the two UML_DOORS Requirements Modules.

Nakamura teaches analysis of updates to be performed (col. 2, lines 62-67 "The

difference detector 111 compares files ... and outputs the list describing the presence or

absence of the files and the differences in content between the files").

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to analyze the updates (Nakamura col. 2, lines 62-67 "The difference

detector 111 compares files ... and outputs the list describing the presence or absence

of the files and the differences in content between the files") to the UML_DOORS

Requirements Modules (Schultz pg. 308, 6th full par. "the requirements are refined into

more detailed textual technical specifications."; i.e. to detect changes between the

different levels of refinement) and to delete the unused old UML Navigation module and

the new UML_DOORS requirements module once the changes had been applied

(Nakamura col. 3, lines 8-9 "deletes unnecessary files"). Those of ordinary skill in the art

would have been motivated to do so as a known and obvious means of implementing

the disclosed functionality (Schultz pg. 315, last par. "changes are completely

propagated throughout the development model"). These changes would have been well

within the level of ordinary skill in the art, and would have produced only the expected

results of applying the changes (Schultz pg. 315, last par. "changes are completely

propagated throughout the development model").

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US

2005/0125769 to McGovern et al. (McGovern) in view of "Requirements Based

UML" by Schulz (Schulz) in view of Applicant Acknowledged Prior Art techniques

(AAPA) in view of "Requirements Traceability in an Integrated Development

Environment" by I. Macfarlane and I. Reilly (Macfarlane).

Claim 12: The rejection of claim 10, is incorporated; further McGovern and Schulz

teach if a UML Requirement already imported during a previous importation is modified

in the model, there will be, during the following importation:

creation of a new UML_DOORS Requirement corresponding to the UML

Requirement (Schulz pg. 308, 6th full par. "the requirements are refined into more

detailed textual technical specifications.");

creation of a link between the former and the new UML Requirement (Schulz pg. 316 3rd par. "requirements in earlier stages of development should have traces to requirements in later stages of development");

transfer of the incoming and outgoing links from the former to the new UML-DOORS Requirement (Schulz pg. 316, 6th par. Traces are also established between the requirements and UML objects");

McGovern and Schulz do not explicitly teach updating the version number on the new UML_DOORS Requirement.

Macfarlane teaches updating a version number on a new requirement (Abstract requirements traceability is supported in [a] version control and configuration management environment"; the explicitly disclosed management of requirement versions implies an updated version number).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to update the version number (Macfarlane Abstract "version control"; Schulz pg. 316, last par. "makes change control an objective, rational process") of a requirement (McGovern par. [0073] "a set of requirements for a project"). Those of ordinary skill in the art would have been motivated to do so as an aspect of implementing a version control system to support the requirements generation

(Macfarlane pg. 116, col. 1, 3rd par. "Great importance is also put upon ... version

control and configuration management").

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jason D. Mitchell whose telephone number is (571)272-

3728. The examiner can normally be reached on Monday-Thursday and alternate

Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason D. Mitchell/
Primary Examiner, Art Unit 2193